

AMERICAN VETERINARY REVIEW,

FEBRUARY, 1887.

EDITORIAL.

VETERINARY LEGISLATION—the order of the day—it occupies Congress and also the Legislatures of several States—the “Miller Bill” in Congress is for the prevention of contagious diseases in the United States, principally the stamping out of contagious pleuro-pneumonia—it will, however, meet with strong opposition, though it has a fair chance of becoming a law—the attempt to legislate in New Jersey—though the New York law is not approved in New Jersey, some good lessons can be learned from it—prospective legislation in Ohio—the faults and deficiencies of the New York act—a disgraceful mutilation after it had passed both Houses and before reaching the Governor—the clause removed must be replaced—otherwise the law is worthless—action of a Judge of the Supreme Court—illegal negotiations render a new bill necessary—objections by veterinarians of the State—organization of the New York Veterinary Protective Association. DANGERS OF HASTY OFFICIAL APPOINTMENTS—lessons derived from this—the passage of sanitary laws has necessitated the demand for State veterinarians—many appointments made want of selections in the appointed—results—incapacity—lack of ability—neglect of duties—who is to blame, the appointing power or the appointed?—duty of veterinary schools to teach sanitary medicine should be added to their curriculum—one of the best means of repairing the harm done will be to prepare for the demand likely to come. VETERINARY TROUBLES IN COLORADO—Dr. A. Martins is appointed State Veterinarian and Professor of Veterinary Medicine to the State Agricultural College—Dr. G. Faville’s arbitrary and uncalled for removal—politics the motive—will official appointments in the United States ever be made on the European plan? NOTICE AND THANKS. A NEW MOUTH SPECULUM.

VETERINARY LEGISLATION—THE ORDER OF THE DAY.—The most interesting question of the day in veterinary circles, and amongst persons most concerned in veterinary matters, is that of legislation, and especially, if we are to have any, whether it is to

ensure peculiarly to the advantage of veterinarians as servants of the people, or whether it shall be so adjusted as to include in its scope the benefit of the community at large. The making of laws relating in one way or another to veterinary medicine almost seems to have become "the order of the day," not only within the national legislature at Washington, but with the legislatures of the various States, as well. A bill for the prevention of contagious diseases has been introduced in Congress under the name of the "Miller Bill," and, according to general indications, with apparently a fair chance for becoming a law. This measure was introduced and has been manipulated in Congress through the efforts of the stock breeders of the West, and, we believe, originated with the last meeting held in Chicago, by the various kindred associations assembled on that occasion. It is likely, we understand, to encounter strong opposition. But on the other hand, influences not easy to overcome will be brought to bear to insure the success of the measure, and it is not likely that Congress will adjourn without effecting some legislation on the subject, and the appropriation of a fund sufficient to cover the expense attending the process of stamping out. We may, at least, therefore, look for some stringent tentative measure, aiming at the extirpation of contagious pleuro-pneumonia, as the result of the pending legislation, and whatever there may be to follow must be waited for with such patience as we may command. Such of the provisions of the bill as relate to the appointment of veterinarians, as aids in the execution of the law, present strong indications of a large demand for men of recognized ability, and opportunities will probably soon be offered to the practitioners of this class who may entertain a desire to assist in the work.

Special State legislation is not wanting. New Jersey, after her failure last year to perfect an enactment for the protection of veterinary practice, has the matter again under advisement, and strong measures will be urged upon her Legislature. We have printed a transcript of the provisions of the bill, and the result of the pending effort cannot but be earnestly watched by those who, with the veterinarians of New York, are already enjoying legislative protection in their calling. The remark is equally true of

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others who propose to seek the benefits of legal sanction for their chosen profession. Principally amongst these may be mentioned the veterinarians of Ohio and Connecticut, who, we understand, are also preparing to secure the passage of a law regulating veterinary practice in their States.

It is by no means a simple matter to secure even the most obviously proper legislation on the subject of veterinary medicine. The phraseology of the bill; the concessions which may be necessary for the reconciliation of opposing or affiliated interests on all sides; the manipulations of the final passage of the act—all these are little matters of no small practical importance. This is well exemplified by the difficulties that are even now experienced in connection with the existing act passed at the last session of the New York Legislature.

When this act became a law, the veterinarians of that State felt assured that a long step in advance had been gained, and that it had now become but a matter of a few years when the practice of veterinary medicine would be *entirely and solely* in the hands of men fully taught and regularly graduated. But a sad disappointment waited upon this enthusiastic anticipation of good things to come. A clause belonging to one of the principal sections had been omitted in the process of engrossing the bill, and probably before it had received the signature of the Governor, and to-day the veterinarians of the Empire State are obliged to seek in a supplementary amending act, with whatever there may be of uncertainty attending its passage, the perfecting of a measure which they confidently trusted was already complete. But not alone has this omission perplexed and troubled them. Another error of a similar character has to be added to the former, and a clause which makes it a misdemeanor, under certain conditions, for persons to engage in veterinary practice who have not been duly registered, is left unsupported by another which should provide for the prosecution of such cases, and another amendatory act must be devised to obviate the difficulty.

This confusing state of things, (which we would be sorry to consider as a fair sample of the proficiency of New York law makers in the details of practical legislation), has been developed

by a peculiar action on the part of one of the judges of the Supreme Court, who, as we stated in our last issue, had issued a mandamus ordering a County Clerk to register a person who, for what reasons? had neglected to comply with the law, and against whom a suit was instituted by the veterinary societies, State and County; but which was dismissed, as having no prosecuting authority. And then a judge under the pretext of *ignorance of a law which he had not read*, allowed an illegal registration to be made. This incident showed not only one danger alone, but also, the one most likely to arise from the mutilation of the act passed in April, unless the necessary correction is carefully made.

One result of this experience has been the organization in New York city of a State Veterinary Protective Association. This organization already numbers some fifty associates, composed of members of the profession in the State, whose object will be to exercise a general supervision of the professional interests of the veterinarians in the State.

Taking advantage of the neglect of a few practitioners to attend to their registration at the proper time, a few politicians have seen fit to introduce a new bill in the present Legislature by which the time for registration is proposed to be extended by an additional six months. The bill, in this meagre form, had nearly become a law, and as narrowly escaped being railroaded through as any bill ever did. It was about to be put on its third reading, and would have passed the Assembly unchallenged had not proper steps been taken to interrupt its progress and secure its reference to the Committee on Public Health, where it will be properly watched and cared for, and the introduction of the amendments to which we have referred secured.

As a matter of common interest to all who have any concern or connection with the procurement of legislative action, whether original or amendatory, relating to veterinary practice in the various States, we have thought proper to recall these matters, and to urge the lessons they are calculated to teach, of the necessity for vigilance and diligence in watching well the politicians and law makers with whom it may be unfortunately necessary at times to come in contact.

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DANGERS OF HASTY OFFICIAL APPOINTMENTS—LESSONS DERIVED FROM THEM.—The presence of contagious diseases amongst our domestic animals, and principally, perhaps, that of contagious pleuro-pneumonia, from which our export cattle trade has more or less suffered, has undoubtedly been one of the most obvious means of demonstrating the importance of the veterinary profession to the public as a calling, and necessarily of forcing upon the attention of the public an acknowledgment of the value of the acquirements of the properly equipped veterinarian. The popular need and demand for the services of men competent and tried has of course correspondingly increased. This state of things has naturally given a direction to the thoughts of young men looking for an eligible opening to a professional life, and has perhaps determined the choice of not a few of those whose final selection has been the veterinary profession.

Many of the States, having been compelled to confront the duty of providing safeguards for their rapidly increasing stock interests, have also been compelled to look for the men, properly accomplished, to whom to intrust the important duty of detecting and combatting the evils which have become so general and so burdensome. It was not enough to enact good laws and to devise wise sanitary measures for the protection of their live stock; they must also look for veterinarians from whose ranks to appoint the official agents to whom to entrust the responsibility of carrying out the objects of the laws which they have made.

The demand for such professional men became suddenly so great, and the numbers at their disposal comparatively so small, that the proper selection of good men has been at times difficult, and the inevitable result, than which none other could be reasonably anticipated, has since been fully demonstrated. The deficiencies in the acquirements, the experience and the skill of a portion of the official veterinarians in some of the Western States has become to-day a source of trouble and mortification, and their removal for cause seems to be urgently demanded now. The promptness with which their removal should follow the discovery of their incapacity should at least bear some proportion to the haste and inconsideration attending their original appointment.

Unfortunately, however, the accusation of incompetency is not the only objection urged in some of these cases, for we have received information of at least one case in which gross neglect of duty is alleged as the reason for removal from office. This seems to be a case in which everybody is to blame, including the officials who originally granted the appointment to the incompetent veterinarian; but the incompetent himself, who could not be ignorant of his own unfitness, and who, if he could not bring himself to the manliness of declining the office, might at least, after his acceptance of the position, have taken some pains to improve his knowledge and his practical adaptation to the place, which he does not seem to have done.

Such a state of things seems to indicate that of all who were on the ground not one among them had any realizing sense of the importance of the requirements which qualify a man for the office of State Veterinarian. It is not only a simple college education, and a degree obtained from it, that equips a man for such a trust. There are special accomplishments and requisites that one *must* possess. He must be a good diagnostician of the various forms which are assumed by some of the contagious diseases. He must understand that symptoms, causes, lesions, and principally the prophylactic treatment of sanitary science, is a branch of knowledge too profound and comprehensive to be well appreciated and mastered by a mere novice, such as a young graduate. But aside from this, there is a duty which imposes itself upon veterinary teachers. It is just this branch of sanitary veterinary medicine which is almost entirely ignored in our veterinary colleges, and entirely overlooked in most of them, while, probably, it forms in others but a small portion of the curriculum. This is a great error, and a great wrong to their graduates, and it is high time for them to try to repair the harm they have done, and to avoid it in the future.

VETERINARY TROUBLES IN COLORADO—REMOVAL OF DR. FAVILLE—APPOINTMENT OF DR. A. MARTINS.—One of our Western exchanges informs us of the appointment of Dr. A. Martins as State Veterinarian of Colorado, and we are informed that the appointment implies the nomination of the recipient to

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the Professorship of Veterinary Science in the State Agricultural College. Our friend will thus undoubtedly find his hands full. We tender our most sincere congratulations to Prof. Martins, whom we have known for many years. He was graduated amongst the first of his class, and since that time has no doubt improved all his opportunities to become thoroughly fitted for the position he now occupies.

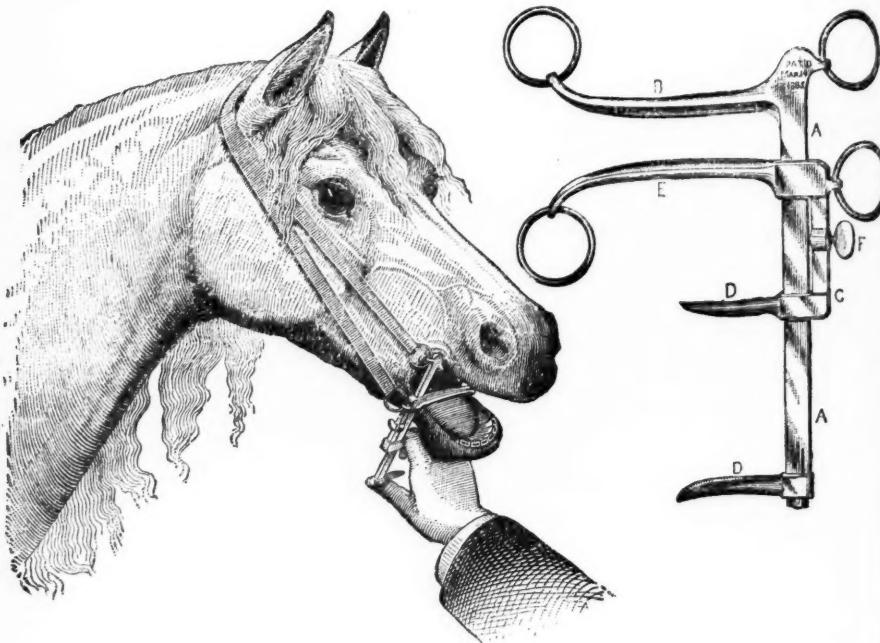
We greatly regret the fact, however, that his election results from what seems to be the improper and uncalled-for removal of the preceding incumbent, Dr. Faville. If we are to believe the information that we have received, the removal of Dr. Faville was "in manner and form an outrage. He was, without notice, oral or written, without cause, or charge being preferred, ousted from his office by a single resolution declaring his office vacant."

The people of Colorado will no doubt congratulate themselves on the selection of Prof. Martins, but an enormous responsibility rests upon him to prevent their regretting the unjust removal of Dr. Faville. But after all, these are but the natural incidents of political appointments. Will the day ever come when all official appointments will be held here, as in Europe, by a life tenure, not to be forfeited except for good and serious reasons?

NOTICE.—We have received a large amount of correspondence and several papers for publication. The crowded condition of our pages does not allow us to print them in the present issue, and their publication has to be unavoidably postponed to other numbers. We render this as an acknowledgment to our friends and correspondents.

A NEW MOUTH SPECULUM.—Our attention has been called to an invention by Mr. J. A. Green, of Waltham, Mass., of a new mouth speculum, and to which we have given a careful and critical trial. We have found it very advantageous and of easy handling in practice. A glance at the wood cuts will readily explain its application and use. The only objection which we may find to it, is that the screw F, which is to keep the speculum open, is rather

weak, and as upon its strength stands the safety of the instrument, we believe it might be altered with advantage.



ORIGINAL ARTICLES.

RABIES VERSUS COMMON SENSE.

By G. ARCHIE STOCKWELL, M.D., F.Z.S.

(Continued from page 419.)

The prominent and definite symptoms laid down now, as two thousand years ago, indicative of *rabies* in the dog are; "Reddened eye, a drooping tail, foaming mouth, and projecting tongue." None are of the slightest value! The first is found in all febrile conditions: the second when the animal is weary, ill, in pain, ashamed, or frightened: the third is ever present in the harmless disease, epilepsy, to which dogs are especially subject, rarely so in *rabies* and *never* until paralysis has set in! The same objections are equally applicable to the last. Moreover, rabid dogs do not fear water, do not shun it, but on the contrary *court it!*

All the nine are harmless dog is even sorts of *striae*, and such as *marbles*, *veterinaria* endeavour for reason *illeus*, *inter* *nitis*, *nephritis*, eye, ear ; kidney, heart, *pneumonia*, epilepsy, *paroxysms* with single paroxysms convulsions (*pyæmœdiasis*, *halitis*, and to which of whose exist suspected

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All the numberless symptoms ascribed to *rabies* in the canine are developed with equal certainty from a multitude of harmless maladies; from *intestinal parasites*, from which no dog is ever wholly free and which lead to the devouring of all sorts of strange substances! From foreign bodies in the *prima viae*, and no canine stomach is exempt from extraneous articles, such as hay, straw, bits of leather, spools, coals, ashes, strings, marbles, etc., a fact generally overlooked by physicians and veterinarians, especially the latter, whose ablest researches and endeavours are for the most part restricted to horses and cattle, for reasons obvious; from *enteritis*, *gastritis*, *acute gastro-enteritis*, *ileus*, intestinal obstructions and perforation, rheumatism, *peritonitis*, *nephritis*, *cellulitis*, *cystitis*, foreign bodies in throat, *larynx*, eye, ear; from "toothache," "earache," parasites of liver, kidney, heart and nasal passages; distemper, ague, *bronchitis*, *pneumonia*, *pleuro-pneumonia*, *laryngitis*, *chorea* (St. Vitus dance) epilepsy, paralysis, seasickness; *anaemia*, *uræmia* (starving, feeding with substances devoid of salt), *mange* (a term that embraces numberless diseases of the skin, though properly belonging to a single parasitical form), *pharyngitis*, constrictions of pharynx, convulsions from whatever cause, abscess in throat, blood poisoning (*pyæmia and septicæmia*), *hydrocephalus*, *meningitis*, *encephalitis*, and in fact the whole class of nervous and mental diseases, to which canines are subject in even greater degree than man, and whose existence, until recently, has been overlooked, not even suspected by most observers!

Post mortem appearances of themselves also, are especially worthless; and congestion of mucous membranes, of kidney, of spleen; the cyanotic condition of various organs; and the dark, gummy tar-like condition of blood, etc., etc.; are alike fallacious and unavailable as evidence, all being a common sequel to overheating or violent exercises in any form, to surfeit and other simple maladies.

The proportion of dogs bitten by satisfactorily known rabid animals—much less human beings—is extremely small—*less than six per cent*—affording a margin suggestive enough to calm all fears not founded on absolute certainty. Nine different attempts

to inoculate the poodle of Hertwig by rabid dogs were ineffectual; in the veterinary school at Lyons dogs, that were bitten experimentally from three to sixteen times remained unaffected; and experiments innumerable might be cited where dogs were bitten from *one to sixty times* without evil results. Grove admits that but *one out of twenty* dogs bitten becomes rabid: John Hunter, *one in twenty-one*: Hamilton, *one in twenty-five*; and Faber's results gave a total of *thirty-one* (31) out of *eight hundred and ninety-two* (892)! Statistics giving larger percentages are found to be made up chiefly of spurious rabies, or otherwise open to suspicion and criticism.

All punctured wounds, and indeed all cicatrices no matter how firm or aged, have a tendency to inflame and reopen under the influence of septic poisons, particularly as the blood becomes more and more impoverished and the continuity or integrity of the red corpuscles is threatened. I have known this to occur as a sequel to serpent poisoning, poisoning by the finrays of certain fishes, from "nursing sore-mouth, (*stomatitis materni*), and *anaemia*, especially in its pernicious form; and in one instance some twenty or more cicatrices of thirty years standing reopened under the influences of the parasites known as *pediculi corporis*, with which the individual fairly swarmed!

Rabic poison is popularly held to lie dormant in the vicinity of the wound, awaiting only a favorable moment to assert its power, which may occur at periods varying from five days to as many years or more. This is simply *nonsense*, and is but a superstition handed down from remote antiquity. It is not only contrary to all physiological reasoning, but untrue of any substance, toxic, septic, or otherwise. Such presupposes a mysterious influence whereby stasis of capillary circulation is induced without morbid manifestation in the part; and this it is hardly necessary to remark involves a pathological *impossibility*! A certain period is essential to the absorption of any poison, varying with the substance or material itself, its mode of employment, and the characteristics, idiosyncrasies, health, etc., of the individual. If the customary manifestations are not exhibited in a reasonable space of time, say six weeks, (a most unconscieable limit), the per-

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son inoculated may disabuse himself or herself of all danger; and should inflammation of the wound supervene, with red lines shooting through the parts, indicative of inflamed absorbents along with swollen glands, it must be ascribed to causes other and remote from rabies! The law of *coincidences* is far more frequent in application than commonly supposed or understood!

Fifty distinct diseases of the human race are and may be mistaken for rabies, including chronic alcoholism, the cocaine, choral, chloroform, ether, and opium habits, and the results that follow in their train. This is not due so much to lack of medical education as to the fears of the individual, and of his advisors, medical and otherwise; and the fact that the malady is of such infrequent occurrence that less than *one-fiftieth of one per cent.* of the medical profession are at all familiar with it or its manifestations; it demands such special study and research as not one in fifty thousand can give, and the teachings of medical schools are usually the "blind leading the blind." I might add with propriety that those most familiar with *rabies* hesitate to impart anything regarding it, recognizing their own inability, and for other obvious reasons, referring by preference to some author upon the subject, while withholding their own convictions. I may further add, that with nearly a quarter of a century's experience as physician, dog-owner and breeder, naturalist and student of canine maladies, I have yet to encounter a case of *true rabies* in either the canine or human subject. Of some scores of suppositiously rabid dogs brought me, or personally investigated, both before and after death, all were found suffering, or to have suffered, from other maladies, and by far the greater portion were epileptics. So of two cases in the human subject that seemed not to admit of a shadow of doubt; one died, when an autopsy revealed the trouble in an abscess of the middle lobe of the cerebrum that during life had manifested none of the evidences whereby localization is had; the other recovered spontaneously, thereby giving the lie to the diagnosis of some thirty able physicians.

Of the influences inducing *false rabies* and the dangers thereof. I will cite three cases, also from personal observation and knowledge: 1. A man of 45 who had all the manifestations of

true *rabies*, apparently, recovered quickly when it was discovered that the creature inflicting the wound was yet alive, and moreover, in full tide of health. Had the dog-owner destroyed his pet in fulfillment of his agreement with the person bitten, the sequel would have been less pleasant. 2. Miss Z., a lady of New Orleans, was bitten by a pet terrier whereby was produced an ugly and cruel wound involving both sides of the thumb and a part of the base of its nail. The arm swelled, the glands and absorbents became violently inflamed, the wounded member was so exceedingly sensitive and painful as to produce an insomnia that defied opiates and sedatives enormously exhibited, and the nervous condition of the lady was most deplorable. Neighbors, friends, and physicians, who were summoned, united in a verdict of "hydrophobia" and demand for the death of the canine. Happily, the father of the lady, himself a physician (retired), declined to sacrifice his daughter's pet until assured beyond doubt that it was rabid. Miss Z. lingered long in the trembling balance between life and death, but eventually recovered; and the dog waxed old and after many years departed life through senility. In these two cases were involved the expressed opinion of the ablest professional talent of Michigan and Louisiana, and they exhibit in no slight degree the liability to error that exists among the most skilled. Indeed, one can but deprecate the carelessness that ever permits a definite affirmative decision where a diagnosis of *rabies* is involved. 3. Sunday, June 20th, of the current year, I was summoned to a case of supposed *rabies* induced by the bite of a pet fox, the sufferer (a Romanist), believing himself doomed, being already engaged in final religious duties. Inquiry precluded the supposition of *rabies* in the animal, which had been too closely confined for infection, which was affirmed by the resurrection of its body. It is needless to remark, perhaps, that the patient immediately rid himself of his *hydrophobia* and other prevalent symptoms, and dismissed his "soul's adviser." *Verbum sat sapientis!* In conclusion are offered a few simple axioms for consideration and remembrance:

1. Dogs that are rabid never evince fear of water.
2. Excessive *slaver* is produced by inability to swallow, and by

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paralysis, independent of rabic conditions, and is a sequel to numerous local, brain and nerve maladies, especially hemiplegia, "toothache," and "St. Vitus' Dance;" moreover, twitchings of eyes, eyelids, facial muscles, and a lolling tongue and trembling jaw, may be placed in the same category.

3. *Rabies* is never of spontaneous origin !

4. Wounds from the teeth of other than the *carnivora* are never rabic, *but may induce septic poisoning!* It is a well known physiological fact that excessive anger or fear may so transform any of the secretions, even mother's milk, as to induce fatality.

5. Safety lies *not* in destroying but in *preserving* the life of the suspected canine, isolating it for observation; its death removes the only means whereby a definite conclusion can be reached! If possible the animal should be muzzled and its body examined for recent wounds; if they are absent, it is presumptive evidence the creature is not rabic. If it evinces good appetite and especially if it partakes readily of food and drink on and after the fourth day, it is not rabic. If it dies without paralysis of lower jaw and posterior extremities, it is not rabic. If after ten days, it be of cheerful disposition, it is not rabic. If it falls into convulsions and foams and froths at the lips, the saliva perhaps streaked with blood-stained mucous, it is *epileptic* and a subject for pity and commiseration. *Dogs with "fits" are never rabic!* If it survives a fortnight, it is not rabic. Finally, if death ensues, a careful examination of the body, brain and intestines especially, will probably reveal good cause therefore, aside from a rabic condition !

6. The human subject affected by *rabies* does not howl or bark after the manner of canines, and such manifestations are *prima facie* evidence of the non-rabic character of the malady—most probably hysteria.

7. Hydrophobia (fear of water) *aerophobia* (fear of air), and intolerance of bright substances and sunlight in man are common results of many maladies, such as nervous hyperesthesia, hysteria, spasmody and membranous croup, acute laryngitis, and pharyngitis, certain vegetable and mineral poisons, melancholia, dementia, hypochondria, the use and abuse of sedatives, narcotics and stimu-

lants, diseases of the female sex, excessive pain as from obscene and undetected cancerous affections, etc., etc., and is a frequent concomitant of a disease of the eye-ball known as acute glaucoma; these symptoms would never excite especial and remarkable attention or suspicion were they not in some way aroused coupled with the dog as a factor.

9. The multitude of nerve and brain disorders, many of which are little understood, in their varied manifestations are often mistaken both in man and beast for rabies.

10. There are no positive means of deciding a disease to be rabies. Until death ensues the weight of evidence is ever in the negative, and even then is by no means certain!

RABIES IN CATTLE.

BY FRANK S. BILLINGS, V.M.

Director of the Experiment Section and Laboratory of the University of Nebraska.

(Continued from page 464.)

The animal was a red steer, about two years old, in tolerably fair condition. The first thing noticed, as we approached it from a distance, was its almost continuous bellowing, which increased if any one approached closely to the pen. The right eye was completely blind and amaurotic; the pupil of the left not so much distended. It could not swallow either feed or water. When excited to move, it tumbled over on fore-knees, even falling to the ground, but rapidly got up again. It had endeavored to chase several strangers who were in the field at the time it was caught. This was the fifth day of its illness, so far as known, but it was ill when found, very excited, and charging repeatedly upon the other cattle in the field.

The average period of the illness in those that have been watched and not killed, has been about nine days.

AUTOPSY.—Animal shot through the heart. Blood blackish-blue as it flowed from the cut vessels; rapidly coagulated on contact with the air, and soon reddened. No exudation in abdominal cavity; bladder empty. The intestines, especially the smaller were of diffuse pink-red color; mesenteric vessels dis-

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tended with a pink-red fluid, as well as those of the omentum; the mesenterial lymph glands were swollen, the cut surface being of a diffuse red color, glistening and juicy. The spleen was somewhat enlarged, but not degenerated in any way, nor did it contain an abnormal quantity of blood.

As the disease had been pronounced anthrax by a person of some authority, and as I had provided myself with a suitable field microscope, an examination of the blood for the bacilli of that disease was at once made. Result: Negative!

The liver and kidneys were somewhat swollen with blood, but were otherwise normal so far as a microscopical examination could determine.

Oral Cavity: The fauces were anaemic, and not at all swollen, but the clinical phenomena indicated the existence of a paralytic condition. The æsophagus presented a most remarkable appearance, being distended to the size of a bologna sausage by partly masticated food, which extended from a point corresponding to curve of the posterior aorta to its pharyngeal ostium. On opening the same it was found filled with corn and fodder, and at the inferior point of the obstructing mass was a large bolus of corn fodder, but not so large that it could not have passed on to the rumen had there not been paralysis of the muscorlis. Lungs normal; heart normal. The rumen and reticulum were well filled with ingesta in a somewhat dry condition. The omasum was the hardest I ever saw, both to the touch and in resistance to the knife, the interlabial spaces being completely packed with ingesta of a hard and dry consistency. No signs of intestinal irritation were to be seen in the linings of the three anterior stomachs.

The Abmosum: Empty. Mucosa intensely of a diffuse pink-red color, and somewhat swollen, but not covered with any catarrhal effusion, nor were any hæmorrhagic discolorations present.

The mucosa of the small intestine was in the same condition, while that of the large was less swollen and infected. The contents of the small intestine was semi-fluid, becoming thicker and drier in the large until we approached the rectum.

On opening the cranium, there was found to be a considerable

quantity of reddish aqueous fluid between the pachia and lefto menix. The vessels of the latter were distended with blood, as were also the large sinuses. The brain substance was reddened and glistening, and somewhat oedematous; numerous petechial spots, of a red color, were distributed through its substance. Blood oozed freely from the cut vessels. Each of the lateral ventricles contained over a tablespoonful of a red aqueous fluid. The vessels of the chroid plexus were distended with blood.

Medulla oblongata marked by numerous petechial spots and of a glistening and oedematous appearance.

(Nov. 8.—Took train early this morning, accompanied by Drs. Thomas and Bowhill, anticipating that Mr. Vance's steer would be much worse. Found my anticipations correct, as Mr. Vance had just harnessed his horse to go to town and telegraph me. He reported that the steer had become much worse and very wild and ferocious at times since we were there on the 5th, and that he did not think it would live much longer. It had eaten or drank nothing since.

Condition seen to-day : Marked signs of emaciation since we last saw it. Eyes bloodshot and wild-looking ; veins of retina (?) much injected ; very excited upon the least movement on our part, and bellowed every other moment ; stamped with fore feet and tore furiously around the pen. On a small water-trough being put into the pen, it went for it with intense fury, so that we felt obliged to put poles into the pen and force the animal into one corner, when it was removed with some difficulty. We had fears that it would break through the pen, it was so violent. Urination frequent.

Shot through the heart by Dr. Thomas. While standing and bleeding, it passed about a pint of a thick manure, which it immediately turned round to eat ; soon dropped in its tracks.

AUTOPSY—Made by Drs. Bowhill and Thomas, as I had a wounded finger :

Brain : On removing the cranium, the large sinuses were found filled with a dark blue-red colored fluid, semi-coagulated. The vessels of the pia mater were very much distended by the same kind of a fluid, and extended above its surface. The gray

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substance of the brain had an abnormally red shade; cut surface moist and glistening; a dark red fluid oozed from the cut vessels. At the base of the brain was a considerable quantity of straw-colored fluid. The ventricles contained a quantity of red aqueous fluid; choroid plexus distended with blood.

The medulla oblongata was surrounded by an abnormal quantity of straw-colored fluid; cut surface moist and glistening; longitudinal veins of spinal canal filled with a dark blue-red fluid. Fauces somewhat swollen and covered with a viscid material, and the large vessels injected. The entrance to the larynx somewhat red and swollen; vessels injected. Some of trachea and bronchial tubes, bronchial lymph glands swollen and somewhat reddened; cut surface moist and glistening. Lungs and heart normal.

Abdominal cavity: Blood dark blue-red; vessels of omentum and mesentery engorged; some diffuse redness here and there in both membranes. Outside of small intestine of a diffuse delicate pink-red color; that of large less so. Spleen somewhat enlarged and of an oblong-oval shape; the swelling was more in thickness than in length.

Liver swollen, and the substance of an opaque yellowish-grey appearance. Gall bladder full.

Kidneys somewhat swollen. Cortical substance of a yellowish-grey opaque color; medullary red, and vasa recti injected.

Bladder about one-third full; urine of a pale straw color; albumen present in small quantity.

Stomach: Only partially filled with ingesta. Linings of first three stomachs softened, and peeled off easily. Third stomach contracted, and contained numbers of small stones. Mr. Vance remarked that "all his sick cattle eat dirt greedily."

Fourth stomach: Mucosa swollen, of a diffuse pink-red color; numerous ecchymoses of variable dimensions, with here and there somewhat extensive haemorrhages which ended diffusely in surrounding tissue. This condition extended through the small and into the large intestine, becoming less and less marked towards the rectum. The intestines were but partially filled with chyme and faeces, and the walls contracted; it was

semi-fluid in the small, and became thicker and thicker towards the rectum. The large vessels were much injected. Mesenterial lymph glands swollen, moist, and of a diffuse pink redness.

I endeavored to inoculate a number of herds from the substance of the brain and medulla oblongata, but as it had to be done in the field and as there was a strong wind blowing, I did not meet with results worthy of reporting at this time, although one form of bacterial life was found to predominate in the cultures.

Subcutaneous inoculations of dogs with large quantities of a bonillon culture of this organism did not produce rabies, but did produce a very singular form of general paralysis, which I am not satisfied to call dumb-rabies, as there was no dropping of the lower jaw, or any such appearance of the pharynx and larynx as are seen in rabies.

I do not consider the above experiments to have any value, as they are too full of objections, but if rabies was present in these cattle, as I am led to conclude, from the history and clinical symptoms, I cannot but think that if the micro-organism is successfully isolated, that large quantities of a bouillon culture introduced subcutaneously, should produce a furious form of rabies in one of three dogs, when the small quantity of virus introduced by a bite is known to do it under natural conditions. I consider that all intra-cranial or meningeal inoculations are open to serious objections, and that to produce rabies in experimental dogs, so that the proof shall be beyond question, we must introduce the cultivated organism in exactly the same manner as is done under natural conditions, and that if we have discovered the organisms, large quantities thus introduced should more surely produce rabies than the small quantities under natural conditions.

But this is not all; if the dogs, thus inoculated, really become rabid to all appearances, we cannot say that we have induced the genuine disease until healthy dogs have been exposed to such dogs and bitten by them, and then, that rabies has developed in some of them in course of time. The above microscopical description exactly corresponds to that of the second animal killed by me on the 28th of August, with the exception of the peculiar

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conditions in the aesophagus, which were wanting. Among other clinical symptoms not noted above, the owners report that when milk cows were affected the yield of milk soon ceased until finally there was none. Many of the animals masticated a great deal and much saliva flowed from their mouths. Tenusmus was frequent. They pawed a great deal with their fore feet.

It may not be uninteresting to record some of the views of authors upon rabies in cattle.

Spinola says—'Handbuch der spec. Palagia and Thereapie. 1858, p. 1555.

"Cattle, bitten by rabid dogs, are more frequently subject to the disease than horses; the phenomena observed are dependant upon the same organic disturbances as in other animals, though the symptoms vary somewhat in different cases.

"The disease begins with loss of appetite, depression and irritability on being suddenly disturbed; the eyes are fixed, wide open, and pupils more or less distended; saliva and froth falls from the mouth; they sometimes gnaw the place of the bite and lick other parts of the body (not reported to or seen by me in the Nebraska cases); they bellow frequently, the voice having a peculiar horse tone; they stamp much with the fore feet and easily become excited at the presence of dogs, other animals or strangers; a tendency to bite is seldom observed. They endeavor to pass the foeces frequently but without much success; in the beginning it is hard, but later on may become fluid, but in either case only small quantities are passed at a time. An undue sexual excitement is often present in both cases.

"Sometimes all these phenomena are present in a single case, in others not. Paroxysms of fury, varying in intensity, are frequent; after which the animals become weak and quiet again. They soon begin to emaciate; paralytic phenomena are frequent."

Williams gives similar symptoms, quoting from Fleming.

Roll says:

"The phenomena in cattle are essentially the same as those seen in the horse. Depression, great irritability, muscular spasms, foaming at the mouth, sexual excitement, difficulty in swallowing and irritation at the locus traumaticas."

During the paroxysms the eyes become reddened, distended, fixed, and the pupils dilated; the voice is changed to a hoarse, dull sound; the animals bellow frequently; stamp with the feet; often fall to the ground but soon rise again, or they seek to become free from their chains when fastened in stables; they strike with the horns and often attack other animals. Appetite and rumination soon cease entirely; the excrements are at first passed in but small quantities and but little at a time and with much tenuus; later on they become fluid, the other conditions continuing; they frequently become much emaciated; at last they become paralyzed, especially behind, and fall into a soporous condition.

Other authors give similar testimony.

EXPERIMENTAL PREVENTION OF RABIES BY INOCULATION.

BY DR. S. WOLFFBERG.

("Centralblatt für Allgemeine Gesundheitspflege, vol. v., p. 274.")

According to the statistics which have been given, it cannot be denied that the results obtained by M. Pasteur, even though his experiments are not without some serious objections, speak most emphatically for the possibility of his preventive treatment for rabies. A very essential objection to the experiments of Pasteur is the want of any satisfactory examination of the organs of rabid animals for specific bacteria, especially those of the nervous system. The specific etiologic principle of rabies is thus far unknown; hence we can still hold doubts if all the cases with which M. Pasteur has experimented have been genuine rabies. Pasteur has, however, shown that dogs, which have been inoculated according to his preventive method, have successfully resisted the effects of the bites of other dogs which were known to be rabid; while still other dogs which had been subjected to this treatment have become unquestionably rabid in consequence of similar insults.

These experiments should satisfactorily demonstrate that M. Pasteur has worked with genuine rabies' material; *i. e.*, with tissues which contained the virus of that disease.

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Rabies, therefore, should be classed with those diseases in which, in certain species of animals, a more or less complete non-receptivity is produced against a section of infection of the same disease. It especially belongs to that class of diseases against which a form of immunity can be produced by means of artificial inoculation through a mitigated infecting material; *i. e.*, a weakened preparation of the specific virus.

In all previously known cases of artificially produced immunity, the artificial infection, by which a severe natural infection has been prevented, has had to be produced anticipatory to exposure to the latter. We inoculate with a weakened virus in order to protect humanity from the small-pox. The same is true with regard to the protection of susceptible animals against anthrax.

Pasteur has apparently made a most important advance in this direction, in that he seeks to prevent the eruption of a deadly disease (rabies) after the animal organism has already been exposed to natural infection, by the introduction into the organism of a mitigated artificial preparation of materials prepared from organs containing the natural virus. Pasteur's preventive attempts upon human beings have, however, an entirely different complexion than those which he has reported upon dogs, above alluded to. In the preventive-inoculated dogs, they were subjected to his treatment before being exposed to the bite of rabid ones, while with human beings he seeks to prevent the generalization or eruption of a disease, the infecting principle of which has already been introduced previous to his treatment. This assertion, or rather attempt, of Pasteur's does not correspond to our experience with regard to vaccination; that is, vaccination has not been shown to be able to prevent the eruption of small-pox in an already infected organism; hence it is scarcely reasonable to assume that such a possibility exists for persons bitten by a rabid dog without further experimental proof. In this case we have to face the results of the "new assertions."

Prof. v. Frisch has asserted "*that Pasteur has received positive results in some twenty days after they had been bitten by rabid ones, by means of his preventive inoculation.*"

It is very unfortunate that we have not been favored with the

exact details of the above experiments. So far as we in Germany are concerned, our knowledge of these is based only upon the above communication.

We are therefore justified in looking upon them not only with some degree of wonder, but doubt also.

V. Frisch has the honor of having repeated some of M. Pasteur's experiments which bear upon the above assertion, and has come to the result "*that neither rabbits nor dogs can secure immunity against the outbreak of rabies by the employment of M. Pasteur's preventive treatment, when infection has already taken place through the intra-cranial introduction of rabid material.*"

It must be admitted, however, that these experiments do not satisfactorily nullify the assertions of M. Pasteur.

If we consider the conditions by which protective inoculation with a mitigated virus is to prevent the outbreak of rabies after an animal (man) has already been bitten by a rabid dog, we must, *a priori*, assume that the changes produced by the inoculation have either run their course or attained a high degree of development before the virus introduced by the bite has developed any considerable degree of activity: Hence, *the protecting disease must have an essentially shorter course than the natural rabies.*

So far as rabies in man is concerned, it is assumed that forty to sixty days must generally elapse, from the time the person was bitten by a rabid dog, before the phenomena of the disease appear. During this so-called period of incubation of forty to sixty days, it cannot be assumed that the infecting elements lie entirely dormant; they undoubtedly increase and disperse themselves, so that, from the period of infection to the outbreak of the disease, their generalization over the organism must gradually take place.

It is, therefore, of the utmost importance, for the successful action of the inoculation which follows the biting of an individual, to determine the length of time subsequent to the same in which the same can be resorted to; that is, the difference in the period of incubation (better generalization—B.) between the artificial and natural disease.

Herein is to be sought the vital point in the experiments and new discoveries of M. Pasteur for the prevention of rabies.

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If, for example, one infect dogs with a rabid virus which has virulence enough to cause the disease to come to its full development, and to kill the patient in the course of twelve days, we should not be justified in expecting preventive results from the subsequent inoculation of a material which could only cause stronger organic changes in a very little shorter period in the inoculated individual. It is known that Pasteur has succeeded in producing an inoculative material by carrying rabid material (from dogs originally) successively through rabbits, which eventually does not require more than seven days to produce lyssa in an inoculated individual. Should we inoculate a dog with such material, after it had already been inoculated with a material that required twelve days to produce rabies, we have to fear that such severe disturbances will have already taken place as to render the resort to preventive inoculation too late. We cannot expect that the inoculation (after the bite of a rabid dog) eliminates the pathological changes; we intend that it shall produce such. Preventive inoculation, after the biting of an individual by a rabid dog, is only to be assumed as possible of success when the natural inoculation has a relatively protracted period of incubation, in which the action of the specific elements is of minimum intensity, so that the subsequent protective inoculation is enabled to produce more rapid and marked changes, on account of the greater activity (rapidity) of the specific principle in the artificial material; or, in other words, *so that, through the subsequent (to the bite) inoculation, produces preventive effects.*

Dogs which have been bitten by rabid dogs do not themselves become rabid, generally, before from three to five weeks. Dogs which have been inoculated subcutaneously with the unweakened natural virus require even longer than those which have been inoculated in the brain. Such cases, which have a longer period of incubation, correspond more to rabies in human beings; and it is only such cases, with an extended period of incubation, that are suited to prove the question if the inoculation with infectious rabies material which has been derived from rabbits is capable of preventing the outbreak of the disease.

Although the evidence is fully as much for as against M. Pas-

teur's assertion, still the best means to prevent rabies—human or canine—is to reduce the number of dogs to the smallest number possible by means of a rigid tax and strict execution of the law, and by compelling every dog to wear a muzzle at all seasons of the year.

PATHOLOGICAL PHYSIOLOGY.

ON THE RESISTANCE OF THE VIRUS OF GLANDERS TO THE DESTRUCTIVE ACTION OF ATMOSPHERIC AGENTS AND OF HEAT.

BY MESSRS. CADEAC AND MALET.

We have tried first to realize the natural conditions which, in practice, destroy glandered virus or preserve its conditions, and we have thus examined how long the virulence lasts: first, in matters more or less rapidly dried and in the lung exposed to the air at various times of the year; second, in matters placed in an atmosphere saturated with humidity at the temperature of the air surrounding; third, in matters mixed with water. Then we have studied the resistance of the virus to heat.

We have thus observed that: first, it loses its virulence in matters exposed to free air after complete desiccation; second, that it is rapidly destroyed by warm weather, and, on the contrary, slowly by cold and damp; third, that the virus rapidly dried preserves its virulence longer than when dried slowly; fourth, that glandered matters placed in a medium saturated with humidity at the surrounding temperature preserve their activity for a long time; fifth, that the discharge of glands placed in watering places may preserve its activity for eighteen days; sixth, that the simple throwing of boiling water upon glandered discharge does not destroy its virulence, and that this is destroyed when the discharge is dipped for two minutes only in water in ebullition, though it is not necessary to expose it to such elevated temperature to destroy it.—*Semaine Medicale.*

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INFLUENCE OF THE ORGANISM OF GUINEA-PIG UPON THE VIRULENCY OF TUBERCULOSIS AND SCROFULA.

BY M. S. AELOING.

We have demonstrated that pulmonary tuberculosis affects guinea-pigs and rabbits, while true gangliomar scrofula produces no lesion in the last named animal. From this fact we did not dare conclude that both processes were specifically different, but were obliged to admit that if they derived from one agent, its activity seemed considerably attenuated in scrofula. Starting from this, it was interesting to find out if the virulence of scrofula could be sufficiently increased to render it able to infect either one of those animals.

The organism of guinea-pig is extremely favorable to both tuberculosis and scrofula. This last develops itself so easily and assumes such degree of malignity, that it is justifiable to believe that if it was made to last several generations upon this animal, it would be capable of destroying the resistance presented to it by the rabbit's organization.

Experiments made in that direction have shown that the passage of scrofula on the guinea-pig, during two successive generations, does not increase its virulence for the rabbit, and does not modify to any sensible extent that which it possesses for the cobays.

The result is different with true tuberculosis under its attenuated forms.

Among the bony and articular diseases of men known as local or surgical tuberculosis, some are beyond, while others are considerably improved if not cured, by surgical interference. Those are manifestations of scrofula, others are tubercular, of a less virulent nature than tuberculosis of the lungs or serous membranes. If, then, simultaneously, inoculations are made on rabbits or guinea-pigs with the lesions of this nature, the pigs may present the classical lesions of the most generalized tuberculosis, while the rabbits will escape with a small purulent collection or small granulations of the subcutaneous cellular tissue at the point of inoculation, as if it followed a simple scrofulous inoculation. But again, inoculate rabbits with the tubercles thus developed

in pigs, and those will most always develop a pulmonary tuberculosis. The lesions may be limited; yet implanted in the organism of the two species of animals thus named, they give rise in both to a manifest tuberculosis. At times, true successive cultures on the guinea-pig are necessary to elevate the virulence to the height of the resistance of the rabbit to tuberculization.

Then the organism of the guinea-pig increases the virulence of weakened tuberculous virus, and seems to have no influence upon the virus of ganglionar scrofula.

This fact is quite important, now that there is a tendency to consider tuberculosis and scrofula as one and the same disease. Once again is shown the difference existing between them. If it is not proved that they are due to different causes, or if it must be admitted that they derive from one agent the tuberculous bacillus in different degrees of activity, at least it is shown that in true ganglionar scrofula this agent is yet further from its primitive virulence than in local tuberculosis. Perhaps it is far enough from it to form a fixed variety analogous to those micro-organisms which, after living several generations in an animal specie, are in future unable, in spite of all known means, to destroy the spores from whence they came and in which they made so many victims.—*Academie des Sciences.*

UPON THE EXHALATION OF CARBONIC ACID IN INFECTIOUS DISEASES DUE TO AEROBIC AND ANAEROBIC MICROBES.

BY M. S. ARLOING.

The connection so justly established lately between pathogenic micro-organisms and ferments has become the starting point of several hypotheses as to the intimate causes of death in virulent affections of rapid evolution.

If the microbe is aerobic, M. Pasteur presents it fighting with the red corpuscles, taking the oxygen from which they are loaded, and thus removing from the tissues the necessary element of combustion. This phenomena is well shown in the case of the bacillus anthracis and of the microbe of chicken cholera. If the microbe is anaerobic and acts as such in the organism that is

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producing evident fermentation, the changes are different, as in this case the pathogenic agent is disturbed by the oxygen in the manifestation of its properties.

Admitting for an instant that these characters, observed *in vitro*, take place in living media, important differences must be met, to the point of view of the intensity of respiratory combustion in the two animals, which succumb, one to the inoculation of an aerobic or to the introduction of an anaerobic microbe. If these differences do not exist, the influence deriving from gaseous affinities of aerobic bacilli is not primordial in the question present. And then, the study of respiration, during the entire duration of some virulent diseases whose germs belong to the two above-mentioned types, offers considerable interest.

The diseases chosen for this study are affections met in human species, viz., malignant pustule and gaseous or foudroyante septicæmia.

The guinea-pig and the white rat are the animals which were used. The greatest part of oxygen consummated and eliminated as carbonic acid was dosed during respiration, before the inoculation and during the disease artificially produced. To do this, the animals were enclosed before and after inoculation in a peculiar apparatus.

From a large number of experiments made the following results were obtained :

First.—In anthrax and gaseous or gangrenous septicæmia the quantity of carbonic acid thrown out by respiration diminishes during the course of the disease, especially towards the last hours.

Second.—This change seems to have shown itself after the first effects of inoculation in anthrax, while that after inoculation of gangrenous septicæmia a *slight* increase in the quantity of exhaled carbonic acid was observed for several hours.—*Academie des Sciences.*

CEREBRO-SPINAL MENINGITIS.—It is stated that Dr. Stalker, State Veterinarian for Iowa, on examination of the herd of cattle in Guthrie County, of which quite a number have died, as announced in our last issue, pronounced the disease to be cerebro-spinal meningitis.—*National Live Stock Journal.*

EXTRACTS FROM FOREIGN JOURNALS.

DIFFICULT LABOR IN A MARE—PROLAPSUS RECTI WITH INVAGINATION—DEATH.

By M. DURIEUX.

This interesting observation shows the serious character of invaginated displacements of the rectum. On account of an abnormal position of the foetus, a pregnant mare makes such violent struggles that she has prolapsus recti. She is soon relieved of her difficult accouchement, but the rectum remains protruding, forming a large tumor, red, purplish, through which an invagination of the anterior into the posterior parts of the rectum can be readily discovered. The prolapsus is, however, carefully reduced almost easily, still the mare dies the next day. Half an hour before death the prolapsus had returned, more serious and soon followed by its complete circular rupture at about half a yard from the anus. This is followed by a large hernia of the colic mesentery. At the post-mortem extensive hemorrhage into the peritoneum and a complete laceration of the meso-rectum and of the posterior portions of the colic mesentery are found. This was the cause of death. Evidently extensive prolapsus recti generally carry with them laceration of the peritoneal supports of the last portions of the intestines.—*Annales de Bruxelles*.

MELANOSIS IN A CALF.

By MESSRS. BAILLEUX AND DEGIVE.

Melanosis shows itself under two principal forms, with or without proliferation of histological elements. In the first case it is single melanosis, in the second it is hypertrophic or neoplastic melanosis.

In the single melanosis, the melanic substance is accumulating in a limited region and forms a *collection*, a *melanic cyst*; or it is found diffused and disseminated in the meshes of a tissue and constitutes *melanotic infiltration*.

It is to this kind that this observation belongs. It was observed in a five days old calf. The melanine was infiltrated at

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various degrees in the subcutaneous and peri-osseous connective tissue of all the right half of the head, the cerebro-spinal meninges and cranian nerves; connective tissue continue to the globe of the eye, the right pituitary, the mucous membranes of the palate, pharynx and larynx, the pulmonary tissue, liver, heart and right costal pleura. Considering the character and distribution of the lesions, the author is inclined to consider them the result of bloody diffusion which became black by destruction of the red corpuscles and the transformation of hematine in melanine. The cause of these hemorrhages is unknown. The animal was black with few white spots on the back, abdomen and the part of the head where the lesions were the smallest.—*Annales de Bruxelles.*

MAXILLARY FISTULA IN A DOG.

BY MR. X. PANCHENNE.

A pointer slut had on the right facial region a tumor the size of a nut, somewhat soft and painful. Opened, it allowed the escape of a certain quantity of clotted blood, which was squeezed out and the neoplasm was dressed externally with tincture of iodine. After a few weeks, the animal had entirely recovered. Three months after, however, there was a relapse and the growth had reappeared with the same characters. Remembering the mention of similar cases made by Prof. Reul of the Bruxelles school, the author made a careful inspection of the buccal cavity and examined with attention the condition of the molar teeth. Percussing every one with the point of a pair of curved scissors, he observed that the third molar, though, like all the others, presenting a handsome white appearance, gave a peculiar sound, and seemed to be less strongly implanted in its alveolar cavity. This tooth was extracted and found to be slightly decayed under the gums. It was the cause of the trouble, for recovery rapidly followed the operation, and the animal has enjoyed perfect health since.—*Annales de Bruxelles.*

MELANOSIS OF THE KIDNEYS IN A HEIFER.

By MR. ANDRIEU.

A Normandy heifer, two months old, was found dying without having ever presented signs of disease. At the post mortem, the cause of death was found to be due to well-characterized pulmonary congestion. Besides this, the left kidney is found to be of black color, while the right is of slate shade. The superficial parts of the surrounding fat, the aponeurosis of the great psoas muscles are of a dirty grayish color. The rumen, intestines and peritoneum in contact with these are also colored black. The coloration of these parts extends into the structure of the kidneys and adheres to the hands which manipulates them. The renal capsular present the same alteration. It resembles very much a case of melanosis infiltration, and is rather exceptional in its manifestations.—*Recueil de Med. Vet.*

PSORIASIS OF THE HOCK.—ABSCESS FOLLOWING.—RECOVERY.

By MR. BRIGHT.

A horse had at the hock point, in front, a dilatation of the synovial capsule, a blood spavin. A blister was applied to it and followed by its removal. About two weeks later, a wound, solution of continuity across the hock, scratches like, made its appearance in the fold in the hock. Though the animal is kept at moderate work, a large swelling soon shows itself in the entire leg, which is then unable to carry any weight. Intense fever sets in, and a slight fluctuation shows itself at the bend of the hock. A few punctures give escape only to small excesses of blood. The hock is then treated by continued irrigation, and the next day, say the fifth from the appearance of the swelling, two incisions are made on the internal face of the hock, large enough to allow the escape of a dark, wine-colored pus. The irrigation kept up for a few days, was followed by radical cure.

The case shows the danger of allowing an animal to work when suffering from solution of continuity in front of the hock, as well as the advantages derived by hydrotherapeutic treatment.

—*Revue Veterinaire.*

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SANITARY LEGISLATION.

A BILL TO EXTERPATE CONTAGIOUS PLEURO-PNEUMONIA, FOOT-AND-MOUTH DISEASE, AND RINDERPEST AMONG CATTLE, AND TO FACILITATE THE EXPORTATION OF CATTLE AND THE PRODUCTS OF LIVE STOCK, AND FOR OTHER PURPOSES.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

That for the purpose of better promoting the exportation of cattle and the products of live stock from the United States, and for the purpose of increasing, promoting and facilitating the commerce in cattle and their products among the several States of this Union, and for the purpose of removing the obstructions to such commerce with foreign nations and among the States now occasioned by the existence of contagious, infectious, or communicable diseases among cattle and other live stock, and especially contagious pleuro-pneumonia, the President of the United States is hereby authorized and required, immediately after the passage of this act, to appoint a Board of Cattle Commissioners, consisting of three persons of known executive ability, who shall be charged with the execution of the provisions of this act, and who shall be known and designated as the "United States Cattle Commission," and whose powers and duties shall be those provided for in this act. The President may, when in his judgment the public interests will permit, suspend the functions and pay of said Commissioners, and, when in his judgment the public interest may require, he shall restore such functions and pay, of which suspension and restoration he shall make public proclamation. The salaries of said Commissioners respectively shall be at the rate of five thousand dollars per annum for and during the period of time in which they shall be engaged in the discharge of their duties as such Commissioners. The said Commissioners shall respectively take an oath to faithfully discharge the duties of their office, and shall immediately organize as such Commission by the election of one of their number as president thereof, and proceed forthwith to the discharge of the duties imposed upon them by the provisions of this act.

§ 2. That it shall be the duty of the said Commissioners to cause investigation to be made as to the existence of contagious pleuro-pneumonia, foot-and-mouth disease, and rinderpest; and such Commissioners are hereby authorized to enter, either in person or by their duly authorized and accredited agents, any premises or places, including stock yards, cars, and vessels, within any State of the United States, the District of Columbia, or the Territories of the United States, in or at which they have reason to believe, and do believe, there exist any of such diseases, and to make search, investigation and inquiry in regard to the existence thereof. Upon the discovery of the existence of any of the said diseases, the said Commissioners are hereby authorized to give notice, by publication, of the existence of such disease or diseases, and the locality thereof, in such newspapers as they may select, and to notify, in writing, the officials or agents of any railroad, steamboat, or other transportation company doing business in or through such infected locality, of the existence of such disease or diseases; and are hereby authorized and required to establish and maintain such quarantine of animals, places, premises or localities as they may deem necessary to prevent the spread of any such disease or diseases, and also to cause the appraisal of the animal or animals affected with or that have been exposed to the said diseases, or either of them, in accordance with such rules and regulations as shall be established by them, as hereinafter authorized and provided, and also to cause the same to be destroyed, except as hereinafter provided, and to pay, in case of diseased animals, the owner or owners thereof three-fourths of their value, as determined upon the basis of health before infection, and the full appraised value in case of animals exposed to either of such diseases but not themselves actually diseased, out of any moneys appropriated by Congress for that purpose: *Provided, however,* That they shall not pay more than one hundred and sixty dollars for an animal with pedigree recorded or recordable in the recognized herd-books of the breed to which the animal destroyed may belong, nor more than sixty dollars for an animal not pedigreed: *Provided further,* That in no case shall compensation be allowed for any animal destroyed under

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the provisions of this act which may have contracted or been exposed to such disease or diseases in a foreign country or on the high seas; nor shall compensation be allowed to any owner who, in person or by agent, knowingly and wilfully conceals the existence of any such disease or diseases, or the fact of exposure thereto, in animals of which the person making such concealment, by himself or his agent, is in whole or in part the owner.

§ 3. That the said Commissioners are hereby authorized and required to make, record and publish rules and regulations providing for and regulating the agencies, methods and manner of conducting and making the investigations aforesaid regarding the existence of said contagious diseases; for ascertaining, entering and searching places where such diseased animals are supposed to exist; for ascertaining what animals are so diseased or have been exposed to such contagious diseases; for making, reporting and recording descriptions of the said animals so diseased or exposed and destroyed, and for appraising the same, and for making payment therefor; and to make all other needful rules and regulations which may, in the judgment of the Commissioners, be deemed requisite to the full and due execution of the provisions of this act. All such rules and regulations, before they shall become operative, shall be approved by the President of the United States, and thereafter published in such manner as may be provided for in such regulations; and after such publication said rules and regulations shall have the force and effect of law, so far as the same are not inconsistent with this act and the other laws of the United States.

§ 4. That any person or persons who shall knowingly and wilfully refuse permission to the said Commissioners, or to either of them, or to any duly authorized and accredited agent of said Commissioners, to make, or who knowingly and wilfully obstructs said Commissioners or agents, or either of them, in making all necessary examinations of and as to animals supposed by said Commissioners or agents to be diseased as aforesaid, or in destroying the same, or who knowingly and wilfully attempts to prevent said Commissioners or agents, or either of them, from entering upon the premises and other places hereinbefore speci-

fied where any of said diseases are by said Commissioners or agents supposed to exist, shall be deemed guilty of a misdemeanor, and, upon conviction thereof, or of either of the acts in this section prohibited, shall be punished by fine not exceeding five hundred dollars, or by imprisonment not exceeding one hundred days, or by both fine and imprisonment, at the discretion of the court.

§ 5. That any person who is the owner of or who is possessed of any interest in any animals affected with any of the diseases named in section two of this act, or any person who, as agent, common carrier, consignee, or otherwise, is charged with any duty in regard to any animal so diseased or exposed to the contagion of such disease or diseases, or any officer or agent charged with any duties under the provisions of this act, who shall knowingly conceal the existence of any of the said diseases or the fact of such exposure to said contagion, and who shall fail, within a reasonable time, to report to the said Commissioners, or to some duly authorized and empowered agent thereof, or to some one or more of such officers or agents, their knowledge or their information in regard to the existence and location of said diseases or of such exposure thereto, shall be deemed guilty of a misdemeanor, and shall be punishable as provided in section four of this act.

§ 6. That when the owner of animals decided under the provisions of this act, by the proper authority, to be diseased or to have been exposed to said contagion, refuses to accept the sum authorized to be paid under the appraisement provided for in this act, it shall be the duty of the Commissioners to declare and maintain a rigid quarantine as to the animals decided as aforesaid to be diseased or to have been exposed to any of said diseases, and of the premises or places where said cattle may be found, according to rules and regulations to be prescribed by said Commissioners, approved by the President, and published as provided in the third section of this act.

§ 7. That no person or persons owning or operating any railroad, nor the owner or owners or master of any steam, sailing, or other vessel within the United States, shall receive for trans-

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portation or transport from one State or Territory to another State or Territory or to any foreign country, or from any State or Territory into the District of Columbia, or from the District of Columbia into any State or Territory or to any foreign country, any cattle affected with any of the diseases named in section two of this act, or that have been exposed to such diseases, especially the disease known as contagious pleuro-pneumonia, knowing such cattle to be so affected or to have been so exposed; nor shall any person or persons, company or corporation, deliver for such transportation to any railroad company, or to the master or owner of any vessel, any cattle, knowing them to be affected with or to have been exposed to any of the said diseases; nor shall any person or persons, company or corporation, drive on foot or transport in private conveyance from one State or Territory to another, or from any State or Territory into the District of Columbia, or from said District into any State or Territory, any cattle, knowing the same to be affected with or to have been exposed to any of said diseases. Any person or persons violating the provisions of this section shall be deemed guilty of a misdemeanor, and, upon conviction thereof, shall be punished by fine not exceeding the sum of five thousand dollars or by imprisonment not exceeding one year, or by both fine and imprisonment.

§ 8. That it shall be the duty of the several United States district attorneys to prosecute all violations of this act which shall be brought to their notice or knowledge by any person making the complaint under oath; and the same shall be heard in any district or circuit court of the United States or Territorial court of general jurisdiction holden within the district in which the violation of this act has been committed.

§ 9. That the said Commissioners are hereby authorized to appoint a secretary of the said Board, subject to the approval of the President of the United States, who shall receive a salary at the rate of three thousand five hundred dollars per annum for his services during the time in which, under the provisions of this act, the services of the said Commissioners shall be required. The said Commissioners shall keep an office, and shall make and

preserve a full record of all rules and regulations promulgated under the provisions of this act, of all payments and expenses hereunder incurred, and all other transactions performed by said Commissioners in the discharge of their duties as herein provided; and the said Commissioners shall, on or before the first Monday in November of each year, during their continuance in service, and at such other times as they may deem conclusive to the public interests, or as they may be required so to do by the President of the United States, report to him full and accurate accounts of their expenditures and other proceedings under the provisions of this act, and of the conditions of said diseases throughout the United States, to be by him communicated to Congress. Whenever the functions of said Commission shall be suspended or terminated, it shall turn over to the Commissioner of Agriculture all its books, papers, records, and other effects, taking his receipt therefor, and he shall remain the custodian of the same until such time as the functions of said Commission may be restored.

§ 10. That the said Commissioners shall have power, and are hereby authorized, to employ skilled veterinarians, and such other agents and employees as they may deem necessary to carry into effect the provisions of this act, and to fix the compensation of the person or persons so employed, and to terminate such employment at their discretion; and they are authorized, out of the moneys by this act appropriated, to make such expenditures as may be needed for the actual and necessary traveling expenses of themselves and their said employees, payment of such employees, office expenses, stationery, expenses of disinfecting premises, cars, vessels, and other places, destroying diseased and exposed animals and paying for the same, and such other expenses and expenditures as they may find to be actually necessary to properly carry into effect the provisions of this act.

§ 11. That the moneys appropriated by this act shall be paid over to the secretary of said Commission, from time to time as the same may be found to be needed, upon requisition made by the said Commissioners, and shall be disbursed by the said secretary of said Commission only upon vouchers approved by said Commissioners or by a majority of them. The said secretary

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shall, before entering upon the duties of his office, take an oath to faithfully discharge the duties thereof, and shall enter into a bond to the United States, with sureties to be approved by the Secretary of the Treasury, in such sum as he may designate, conditioned for the faithful accounting for all moneys received by the said secretary of the Commission under the provisions of this act.

§ 12. That for the purpose of carrying into effect the provisions of this act the sum of one million dollars, or so much thereof as may be necessary, is hereby appropriated out of any moneys in the Treasury not otherwise appropriated.

§ 13. That all acts and parts of acts inconsistent or in conflict with the provisions of this act be, and the same are hereby, repealed but this act shall not operate to repeal an act entitled "An act for the establishment of a Bureau of Animal Industry, to prevent the exportation of diseased cattle, and to provide means for the suppression and extirpation of pleuro-pneumonia and other contagious diseases among domestic animals," approved May twenty-ninth, eighteen hundred and eighty-four, except in so far as said act provides for extirpating the diseases named in section two of this act.

CORRESPONDENCE.

PROF. WALLEY EXPLAINS.

EDINBRUGH, Dec. 14, 1886.

Editor American Veterinary Review:

In your issue of this month, Mr. Bowhill has done me the honor of referring at some length to my published views on "Swine Plague," and while appreciating this honor, I must ask him to excuse me if I direct his attention to several inaccuracies on his part.

1st, The title of Swine Fever. Mr. Bowhill objects to me using the term *eruptive fever*, stating (a) "that there is no such thing as a specific fever that has lesions produced only by the rise of temperature;" (b) That "swine-plague is by no means an eruptive disease (as I have seen it in America) if by eruption Prof. Walley means skin complications."

Mr. Bowhill's supposition—that rise of temperature does not alone produce lesions—is self-evident, nor do I suppose that any one will contend that it does.

The term eruptive fever may, in my opinion, be very aptly applied in swine-plague, and I fancy was so applied in the first instance to similar diseases by a wiser head than either mine or Mr. Bowhill's, and if in any disease the skin lesions deserve the term of eruption, those of swine fever certainly do—as I describe in my paper on the subject.

2nd, Mr. Bowhill charges me with neglect of the work of Messrs. Detmers and Salmon. Had I been conversant with the writings of these gentlemen, I should, with pleasure, have noticed them.

3d, *In re* pulmonary lesions, Mr. Bowhill should have left out the word "every," and he should have reproduced accurately my statement on this point.

4th, *In re* the condition of the fœces, Mr. Bowhill should have read into pp. 21, 22 of my paper, and he would there have found that I state—"But more largely they (the fœces) will be found (a) in the form of small concrete masses, etc; (b) in the form of large masses of a very dark color, of firm consistence, very cohesive, etc." I am,

Your ob't serv't,
THOMAS WALLEY.

AN APPEAL FOR MORE INTEREST IN MEETINGS.

PROVIDENCE, Jan. 5. 1887.

Mr. Editor:

In the January number of the REVIEW is a notice of the meeting of the United States Veterinary Medical Association, to take place in Philadelphia next March. I hope there will be a corporal guard in number at least, but if the meeting is not more interesting than it generally is, the number, however small, will not be half paid for going, for I have no doubt that there will be the regular amendment to the constitution and by-laws and the ordinary amount of quibbling over some technical points, that are neither entertaining or instructive—as has been the case for

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the past ten years; now, if the profession at large feel as I do, they feel that to go three or four hundred miles away, spend twenty-five dollars, or more, two nights' and one day's travel, for one day's poor meeting, is undoubtedly a great waste of time at least, if not of money.

Yours, respectf'y,

C. H. PEABODY.

[We sincerely hope our correspondent is in error in this case, and feel assured that, with all his complaining, he will be there, as he says: "Well, anyhow, good or bad meeting, I will go and be there to see the boys."—ED.]

OSSEOUS PORCINE LITTER.

KINGSTON, ONT, Dec. 19, 1886.

To the Editor

DEAR SIR:—An interesting case has just come to my notice (or rather the full developments of it.)

Last spring, I was consulted by a farmer regarding a sow; she had been served by a boar four and a half months previous, and had every appearance of "being pregnant, but no young were brought" forth.

I heard nothing more about the case until to-day, when the owner states that he killed the sow yesterday, and, upon examining the womb, found the bones of several pigs in a perfect state, more principally the inferior maxillæ, scapulæ and portions of the skulls.

During the summer, he says, there was a nasty discharge from the vulva for a time; finally, the sow regained her normal condition, apparently, and being fattened, weighed at death 425 pounds.

It would be about twelve months since she was served by the boar.

M. W. SINE, V.S.

CHANCE FOR A YOUNG VETERINARIAN.

BATHGATE, DAKOTA, Jan, 11, 1887.

Principal American Veterinary College:

DEAR SIR:—Will you kindly put me in correspondence with a good, energetic young man, a graduate of your college, who is desirous of locating West, with an extensive and needy field for a V.S. This county is sadly in need of one, as there is but one in the county at present, and an unusual number of sick horses. The fact is that I never saw so many sick horses as there are here, and so few doctors. The county is 30x36 miles in extent, counts about 12,000 souls, a good railroad, and many enterprising towns; in fact, I believe it is a first-class opening for a V.S., and would like to hold correspondence with a good, capable man. I can give best of references as to the correctness of the above.

Yours respectfully,

L. K. ARMSTRONG.

ONTARIO VETERINARY COLLEGE EXAMINATIONS.

The Christmas examinations were concluded on Tuesday, the 21st of December, when the following gentlemen, third year students, were awarded the Diploma of the Council:

Geo. Dunn, Simcoe, Ont.; Jacob M. Fetzer, Centre Valley, Pa., U. S.; John F. Fisher, Brandon, Manitoba; D. Bell, Brampton, Ont.; W. S. Henderson, Arthur, Ont.; J. H. Hennessey, Hamilton, Ont.; William Hunter, Brampton, Ont.; W. S. Hibbard, Caledonia, Ont.; G. N. O'Leary, Pickering, Ont.; R. H. McQuinch, Dakota, U. S.; W. H. McNaughton, Vienna, Ohio, U. S.; J. E. Rayen, Girard, Ohio, U. S.; W. H. Riddell, Orangeville, Ont.; C. Wagg, Goodwood, Ont.; A. C. Wolfe, Durham, Ont., J. H. Thornton, Georgetown, Ont.; M. E. Young, Belleville, Ohio, U. S.; T. H. Stirling, New Hamburg, Ont.

J. E. Rayen, J. F. Fisher, W. S. Henderson and G. N. O'Leary passed with great credit.

C. H. Shirland, Madrid, N. Y., passed a Primary examination in *materia medica*.

LIST

Names.

Bowers, Geo.
Finnigan, —
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Hodgson, J. —
McGee, W. J.
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**LIST OF VETERINARIANS AND PRACTITIONERS
REGISTERED IN COUNTY CLERK'S OFFICE,
IN BROOKLYN, KINGS COUNTY.**

<i>Names.</i>	<i>Colleges.</i>
Bowers, Geo.....	American Veterinary College.
Finnigan, —.....	Columbia " "
Hartingson, M.....	Royal College of Copenhagen, Denmark.
Hodgson, J. R.....	American Veterinary College.
McGee, W. J.....	" " "
Van Mater, Geo. G.....	" " "

IN WESTCHESTER COUNTY.

<i>Name.</i>	<i>College.</i>
Bradley, Seamen.....	American Veterinary College.

NON-GRADUATES.

Allaire, J. E. (colored.) (2)	Marsh, A. B.
Carpenter, T. H. (1)	Miller, Monsell F.
Dolan, Rich.	Mollenaur, A. J.
Halleck, W. S.	Willer, Elbert.
Horton, Caleb.	

(1) Swears he has practiced for 50 years.

(2) " " " 30 "

IN SCHOHARIE COUNTY.

<i>Name.</i>	<i>College.</i>
Marsh, J. Wallace.....	Columbia Veterinary College.

NON-GRADUATES.

Benedict, I. W.	Spickerman, Abram.
Brockway, Lewis A.	Winor, George B.
Feeck, Charles R.	Young, Nathais W.
Rowley, Nelson.	Zimmer, Jacob N.

All of which have practiced three years.

SOCIETY MEETINGS.**NEW YORK STATE VETERINARY SOCIETY.**

The annual meeting of the New York State Veterinary Society, was held on Tuesday evening, December 14th, at the American Veterinary College, the President, Dr. R. W. Finlay, in the chair.

Members present—Drs. Liautard, Burden, Field, C. C. Cattanach, J. S. Cattanach, Duane, L. McLean, R. A. McLean, Dixon, Bowers, Pendry, Cuff, Berns, Birdsall, Machaw, R. W. Finlay, R. A. Finlay, R. Ogle, Jacobus.

After the reading of minutes of the previous meeting, a motion to adopt the same was made, immediately followed by an objection by Dr. L. McLean, who asked to have that portion relating to Dr. Faust's report of affected cattle in his district re-read, which request, on being complied with, he stated that a wrong term had been used and moved that the word Filari be struck off. Considerable discussion followed, during which Dr. Liautard stated that he had received a letter from Dr. Faust, relating to the disease, in which the proper term had been used; the minutes were finally adopted as read.

Dr. Cuff reported that the committee appointed by N.Y.S.V.S. to confer with a like committee appointed by N.Y.C.V.M.S. had met on numerous occasions, that they had appointed a sub-committee with full power to act as they saw fit; that this sub-committee had met and discussed the question; that they saw fit to call a meeting of the two original committees and at that meeting the sub-committee resigned and on their resignation a Board of Trustees was appointed to take charge of a fund then established, said fund to be used in carrying out the provisions of the veterinary bill as recently passed in the Legislature.

The Board of Trustees are Drs. Eisner, R. McLean and W. E. Cuff. Dr. R. A. McLean stated that there was a great many men practicing who had no legal right to do so and also that the bill had been neglected, inasmuch as the date relating to the granting of certificates had been left out, but whether it was changed after or before our committee had left Albany he was not able to say. Dr. W. H. Pendry, of the Committee on Legislative Matters, took the remarks of Dr. R. McLean as an insinuation to him, and, in refutation, stated that just about the time the act was going into force he wrote to the Secretary of State for a certified copy of the bill, and when he received it he noticed for the first time that the date relating to certificates had been left out.

Dr. R. A. McLean stated that he had seen the act as in the original bill in law books published recently. After some further discussion Dr. Liautard said it was a very important matter and that the society should investigate it. The report of the committee was accepted, and a motion made and carried that the chair appoint a committee of three to investigate the matter. The following were appointed: Drs. Liautard, R. McLean and W. H. Pendry.

The election of officers for the year 1877 was then taken up, with the following result: President, Dr. W. H. Pendry; 1st Vice-President, Dr. T. Birdsall; 2d Vice-President, Dr. Geo. Bowers; Secretary and Treasurer, Dr. W. E. Cuff. Board of Censors—Drs. R. A. McLean, D. Dixon, W. J. Coates, R. A. Finlay and R. Ogle.

The newly elected President was then conducted to the chair and welcomed by the retiring President, who addressed the meeting with a few well placed remarks. Dr. Pendry accepted the honor conferred on him as a mark of appreciation of his efforts to elevate the veterinary profession. Dr. L. McLean moved a vote of thanks be extended to the retiring President, which was carried.

A communication was then read from Mr. P. O'Halloran, and a motion being put and carried, it was referred to the Board of Censors.

After some discussion as to who would be the next essayist, a motion to adjourn was carried.

Wm. E. CUFF, D.V.S., Secretary.

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VETERINARY MEDICAL ASSOCIATION OF NEW JERSEY

Veterinary surgeons from almost every county in the State of New Jersey met in convention at the American House, in the city of Trenton, on Thursday, the 9th day of December, 1886, to consider the subject of veterinary legislation.

The legislative committee, of which Dr. J. W. Hawk, of Newark, was chairman, met at 10 A. M. After considering the merits of several bills, the committee endorsed the bill drafted by Dr. Wm. Herbert Lowe, of Paterson. The object of the bill is to regulate the practice of veterinary medicine and surgery in the State of New Jersey, and is similar, in many respects, to the one in force in regard to practitioners of human medicine.

At 11.30 A. M., the session was called to order by President Miller, of Camden County. After calling the roll, Dr. Lowe read letters from Dr. W. H. Pendry, secretary of the New York State Veterinary Society, Dr. D. J. Dixon, of the American Veterinary College, New York City, and others, in which they expressed a deep interest in the affairs of the Association.

The Secretary read the minutes of the Long Branch meeting which were adopted.

The Treasurer, Dr. L. R. Sattler, of Newark, reported in regard to the finance of the Association. The Secretary made no report.

Dr. Miller next called for the report of the committee on legislation. The chairman stated that they were in favor of the bill drafted by Dr. Lowe. By this time Dr. E. M. Hunt, Secretary of the New Jersey State Board of Health, had arrived, and the President took advantage of the opportunity by requesting him to give his views upon the subject under consideration before the Association took action. Dr. Hunt said that the bill just recommended by the legislative committee was an excellent one, and that he approved of it in most respects. He then proceeded to review it section by section. The third section was to the effect that any person who shall have been practicing veterinary medicine or surgery in the State, for a livelihood, for a period of not less than ten years immediately preceding the passage of the act, without having obtained a diploma from a legally chartered or incorporated veterinary college or university, as provided for in section 2 of the act, may, at the next regular meeting of the Veterinary Medical Association of New Jersey, present himself to the Board of Censors for examination, and if he should be found worthy, would be allowed to register and continue practice.

Dr. Hunt said that any person who had had twenty years experience in the practice of *human* medicine and surgery in one locality in the State immediately preceding the passage of a certain act of the Legislature, could make affidavit as to the facts and register and would be allowed to continue practice without undergoing any examination. He said that if the State Society of Veterinary Surgeons examined non-graduates, and gave them certificates testifying that they were worthy practitioners, we would elevate their standing much more than we would by allowing them to register without any examination. If this latter course were adopted, he continued, it would be an easy matter to ascertain the professional standing of any particular practitioner, whether a college graduate

or not, the affidavits of non-graduates would be on file with the diploma of graduates, and could be examined in the County Clerk's office. Dr. Hunt's suggestions were approved of and were incorporated in the bill when it was adopted by the Association.

The Board of Censors reported in favor of R. E. Stanwood, of Freehold, and he was elected to membership. Several applications for membership were made, after which the following gentlemen were proposed for honorary membership:

Dr. Huidekoper, Dean of the Veterinary Department of the University of Pennsylvania, and Dr. Wm. L. Zuill, of the same institution, by Dr. Miller; Geh. Med. R. Prof., Dr. Leisering. Dresden, Saxony, by Dr. Sattler.

After the transaction of routine business, the members of the Association listened to an able address by Dr. Hunt on veterinary matters in New Jersey. He told of the work being done by the State Board of Health in stamping out pleuro-pneumonia and other contagious animal diseases prevalent in the State. He spoke at some length of the benefits to be derived from the Association—social, scientific and otherwise. He said we, as veterinarians, were fortunate in not having any old troublesome laws to deal with, as had the practitioners of human medicine; that, in his opinion, little legislation was needed beyond the passage of the bill which had been endorsed by the Association. Dr. Hunt said that the medical men of the State had failed except in getting a general law passed. He said that the Association ought to be very careful who they admitted to membership, and consequently that a very important duty devolved upon the Board of Censors.

The Doctor extended an invitation to the members of the Association to visit the library of the State Board of Health at any time. He further stated that a member would be allowed to take a veterinary work from the library upon the recommendation of the President or Secretary of the Association.

The Chair appointed Drs. Hawk, Smith, Dunstan, Cooper and Loblein, with Drs. Miller and Lowe, members ex-officio, as a Committee on Legislation, to represent the interests of the Association at Trenton, and to present the proposed bill to the Legislature.

Upon motion of Dr. Loblein, the Secretary was instructed to have copies of the bill printed and sent to members of the Association as well as to the Legislature.

The President appointed Dr. Loblein essayist for the next regular meeting.

The Association decided to hold the April meeting in Newark, the place of meeting to be selected by a committee consisting of Drs. Sattler, Vogt and Hawk, all of Newark.

After a prolonged session, the members adjourned for dinner.

W.M. HERBERT LOWE, D.V.S., Secretary.

ANNUAL MEETING OF THE OHIO STATE VETERINARY MEDICAL ASSOCIATION.

The Ohio Veterinary Medical Association held its annual meeting in Piqua, Ohio, on Tuesday, the 11th of January, at 10 a. m. Dr. Cotton, President, being

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absent, Dr. Howe was called to the chair, who called the meeting to order. The Secretary called the roll.

The minutes of the previous meeting were then read and were approved. Dr. J. V. Newton then read a very instructive paper on kidney disease in a stallion at Kalamazoo, Michigan, which created a very lively discussion, which was followed by one by Dr. J. C. Meyer, Jr., on the uses of the galvano-cautery. He had had very good success in using it. His paper also created another lively discussion on firing, etc. A motion to adjourn until 1:30 P. M. carried. Members were then requested to meet at Dr. J. S. Butler's infirmary at that hour to operate on several cases he had collected together for that purpose.

A number of operations were then performed by Dr. Meyer, Jr., on a bone spavin with the galvano-cautery; on a case of ventral hernia, by Dr. Howe; on firing with the thermo-cautery, by Dr. Shaw; on a malignant growth of the inferior maxillary with caries of the bone, by Dr. G. W. Butler, who caponized a number of chickens, and by Dr. Tiffany, who operated on a case of crib-biting.

At the evening session the following officers were elected: President, J. C. Meyer, Jr., Cincinnati; 1st Vice-President, W. R. Howe, Dayton; 2d Vice-President, W. Shaw, Dayton; 3d Vice-President, W. E. Wight, Delaware; Recording Secretary, W. A. Labron, Xenia; Corresponding Secretary, A. H. Logan, Bellefontaine; Treasurer, J. V. Newton, Toledo. Censors—Drs. Wight, Kerr, Shaw, Hillock, G. W. Butler.

A motion was passed to elect Dr. J. A. Lee, of Lima, a member of this Association. Dr. Lee thanked the association in a few well chosen remarks. The chair appointed Drs. Hillock and Butler on Auditing Committee.

Dr. Meyer read a letter from Dr. Pendry, of New York, in regard to legislation regulating the practice of veterinary medicine and surgery. Considerable discussion took place upon the reading of the act just passed in New York and which did not meet the approval of all the members.

It was moved and seconded that a committee be appointed to draft a bill to present to the legislators of the present session relating to regulating the practice of veterinary medicine and surgery in this State.

The President appointed the following as such committees:—P. D. Yonkerman, Cleveland, Howe and Shaw, of Dayton, Lee, of Lima, and J. C. Meyer, Jr., of Cincinnati. They will soon hold a meeting in Dayton to take action on the matter. Prof. Detmers, of Columbus, was at present drafting a bill for the same object. It was thought best to write him to meet the committee at Dayton and make some compromise.

Dr. P. D. Yonkerman was then called upon to read his paper on "Veterinary Medical Jurisprudence," which was followed by a very lively discussion.

Dr. Hillock then read an interesting paper on the operation of Lithotomy recently performed by himself. This paper was also well discussed.

Dr. Yonkerman read a second paper entitled, the "Veterinarian in Society," which was a good one. It was moved and seconded that, with Dr. Yonkerman's consent, both his papers be published in the *VETERINARY REVIEW*.*

The matter of reinstatement of Dr. Franks was laid over until next meeting, and in the meantime, he was requested to send in his petition in writing to the Secretary before the next meeting.

*These have been received and will be published at the earliest opportunity.—[ED.]

It was decided not to hold any June meeting this year; also the semi-annual meeting to be held in July instead of September, as formerly done. It was also decided to hold it the second Tuesday in July in the city of Cleveland.

T. B. Cotter, of Mt. Vernon, D. L. DeVoe, of Ripley and S. H. Kent, of Cadiz, were appointed to read a paper at the next meeting.

A vote of thanks was tendered Dr. Butler for securing cases for operation, etc., also to Drs. Meyers, Hillock, Yonkerman and Newton, for very able papers.

The thanks of the meeting were also tendered Dr. Tiffany, of Jacksonville, Ill., for his efforts in trying to have his operating table here for exhibition, but owing to the railroad being so slow, it did not arrive.

A vote of thanks was also tendered Mr. Collins, of the Bassett House, for his kindness in furnishing a place for the meeting, and other favors. Meeting then adjourned.

W. A. LABRON, V.S., Recording Secretary.

SEMI-ANNUAL MEETING OF THE MISSOURI ASSOCIATION OF VETERINARY SCIENCE AND COMPARATIVE MEDICINE.

The semi-annual meeting of the Missouri State Association of Veterinary Science and Comparative Medicine was held at the State University, Columbia, Mo., December 6th. The Association was complimented by the presence of Professors McAlister and Moss, members of the medical faculty of the University. Balloting for officers for the ensuing year resulted in the re-election of Paul Paquin as President; T. E. White, First Vice-President; James Johnson, Second Vice-President; H. B. Adair, Treasurer; H. F. James, Secretary; H. B. Platt, C. W. Crowley, A. Ronif, Censors. Professor McAlister delivered a short and impressive speech on the importance of comparative medicine. At this stage the meeting adjourned for a few hours, and the visitors were invited to the study of Dr. S. S. Laws, President of the University, who welcomed them to Columbia, and afterwards manifested the kindest feelings towards the veterinary profession in the long and interesting conversation that ensued. The members next enjoyed the hospitality of Dr. Paquin, who proved himself as accomplished a host as he is a bacteriologist.

The meeting was called to order again at 2 p. m. by the President, with a few appropriate remarks. We were pleased to have with us Drs. McAlister, Moss and Gordon, several resident physicians and a number of students.

H. F. James, of St. Louis, read a paper on pleuro-pneumonia, in which he quoted some words from a letter which he had lately received from Professor Smith, of the Ontario Veterinary College, Toronto, Can., to the effect that the Professor believed we would be forced to resort to inoculation to successfully combat pleuro-pneumonia, and stating that from what he had seen of it in Edinburgh with Mr. Rutherford, its results were beyond the range of speculation. This opinion, coming from such a widely known and eminently practical authority, carried with it due weight. The discussion which followed shifted to tuberculosis, on which subject Dr. Adair, of Kansas City, was to have read a paper.

Dr. T. E. White, of Sedalia, in answer to some inquiries of Drs. McAlister and Moss, gave an instance of the transmission of consumption or tuberculosis

from a cow to a child. He stated that the cow was tuberculous, and the child had symptoms on the lungs. The question was asked whether the cow could have been infected on either the milk or the meat. The father, who was present, said that the cow was healthy, and although the child had symptoms, they were not serious enough to require destruction. The father said that the child was not tuberculous, and that the child's mother was not tuberculous. There were no other children in the family.

Dr. Paul Paquin, of St. Louis, was present. He said that he had just returned from France. He said that he had been in Paris for a week, and that he had been well received by the French Society of Veterinary Medicine.

The following officers were elected: President, Dr. W. A. Labron; Vice-President, Dr. T. E. White; Secretary, Dr. H. F. James; Treasurer, Dr. H. B. Adair; Censors, Drs. C. W. Crowley and A. Ronif.

A vote of thanks was tendered to the Missouri State Association of Veterinary Science and Comparative Medicine.

After the meeting adjourned to the home of Dr. T. E. White.

MARYLAND

This Association was organized in 1881. The first President was Dr. W. H. Marten. The second Vice-President was Dr. W. H. Marten. The third Vice-President was Dr. W. H. Marten. The fourth Vice-President was Dr. W. H. Marten. The fifth Vice-President was Dr. W. H. Marten. The sixth Vice-President was Dr. W. H. Marten. The seventh Vice-President was Dr. W. H. Marten. The eighth Vice-President was Dr. W. H. Marten. The ninth Vice-President was Dr. W. H. Marten. The tenth Vice-President was Dr. W. H. Marten. The eleventh Vice-President was Dr. W. H. Marten. The twelfth Vice-President was Dr. W. H. Marten. The thirteenth Vice-President was Dr. W. H. Marten. The fourteenth Vice-President was Dr. W. H. Marten. The fifteenth Vice-President was Dr. W. H. Marten. The sixteenth Vice-President was Dr. W. H. Marten. The seventeenth Vice-President was Dr. W. H. Marten. The eighteenth Vice-President was Dr. W. H. Marten. The nineteenth Vice-President was Dr. W. H. Marten. The twentieth Vice-President was Dr. W. H. Marten. The twenty-first Vice-President was Dr. W. H. Marten. The twenty-second Vice-President was Dr. W. H. Marten. The twenty-third Vice-President was Dr. W. H. Marten. The twenty-fourth Vice-President was Dr. W. H. Marten. The twenty-fifth Vice-President was Dr. W. H. Marten. The twenty-sixth Vice-President was Dr. W. H. Marten. The twenty-seventh Vice-President was Dr. W. H. Marten. The twenty-eighth Vice-President was Dr. W. H. Marten. The twenty-ninth Vice-President was Dr. W. H. Marten. The thirtieth Vice-President was Dr. W. H. Marten. The thirty-first Vice-President was Dr. W. H. Marten. The thirty-second Vice-President was Dr. W. H. Marten. The thirty-third Vice-President was Dr. W. H. Marten. The thirty-fourth Vice-President was Dr. W. H. Marten. The thirty-fifth Vice-President was Dr. W. H. Marten. The thirty-sixth Vice-President was Dr. W. H. Marten. The thirty-seventh Vice-President was Dr. W. H. Marten. 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KANSAS

At a meeting of the Kansas State Veterinary Medical Association, held in the office of Dr. W. H. Marten, on December 16th, 1881, a resolution was given above and adopted states that the Association will provide a course of ignorant veterinary students to draft a bill to be presented to the Legislature.

from a cow to two children, who died within one year of each other. Post mortems on the children showed tubercular lesions. There was no consumptive taint on either the maternal or paternal side as far back as the family records went. The father, who was a physician, disbelieved both in the existence of tuberculosis in cows and its transmissibility to the human being through the milk, and, although warned by a veterinarian that his family milch cow was tuberculous, would not part with her until the loss of his children forced him to order her destruction. A loathsome mass of tubercle was found in the chest, and the childless man was overwhelmed with grief at the sad results of his obstinacy. There are any number of cases equally conclusive.

Dr. Paul Paquin gave some very interesting points gleaned in his recent trip to France. The laboratory which he is getting into working order at Columbia cannot but be of the greatest practical benefit to the State, and its utility is endorsed by every member of the Association.

The following gentlemen were unanimously elected honorary members of the Association: Prof. J. W. Sanborn, Dr. S. S. Laws, Prof. McAlister and Prof. Moss, of the State University, Columbia, and J. H. Holmes, Esq., Agent Humane Society of Missouri, St. Louis.

A vote of thanks was extended to the medical faculty for their kindness in providing us with a meeting place, and to Dr. Paul Paquin for his royal entertainment of the Association.

After happy speeches from Drs. McAlister, Moss and Paquin, the meeting adjourned to meet again at 10 A. M., the second Monday of July, at St. Joseph, Mo.

H. F. JAMES, Secretary.

MARYLAND STATE VETERINARY MEDICAL ASSOCIATION.

This Association, which has just been organized, has elected for its officers: President, W. Dougherty, D.V.S.; First Vice-President, C. L. Moulton, D.V.S.; Second Vice-President, Thomas W. Spranklyn, D.V.S.; Secretary-Treasurer, W. H. Martenet, D.V.S. Meetings will be held monthly in various parts of the State, and occasionally in Washington, D.C.

W. H. MARNET, D.V.S., Secretary.

KANSAS STATE VETERINARY MEDICAL ASSOCIATION.

At a meeting of the Veterinarians' Association of the State of Kansas, held at the office of State Veterinarian Holcombe in Topeka on Thursday evening, December 16th, it was determined to reorganize the Association under the name given above and take out a charter under the laws of the State. The constitution adopted states the object of the Association to be to "stimulate fraternal intercourse, provide dissemination of veterinary medical knowledge, prevent practice of ignorant veterinary empirics, and maintain a medical library." It was decided to draft a bill to regulate the practice of veterinary medicine in the State, which will be presented and pushed at the next session of the Legislature.

The following named were elected officers for the ensuing year: President, Dr. W. P. Epperson, of Ottawa; Vice-President, Dr. A. A. Holcombe, of Topeka; Secretary, Dr. E. R. Allen, of Kansas City; Treasurer, Dr. J. H. Wilhite, of Emporia; Board of Censors, J. H. Wilhite, of Emporia; O. W. Murphy, of Lawrence; E. R. Allen, of Kansas City; A. A. Holcombe, of Topeka, and J. C. McCasey, of Concordia.

This organization of the veterinarians of Kansas is the outgrowth of the efforts of Dr. Holcombe, and is well calculated to elevate the veterinary professor in the estimation of the people. It seems to be the determination of Dr. Holcombe and other members of the profession that "horse-doctors" and "cow-doctors" in the State shall give way to educated and regularly graduated veterinary surgeons.

NEWS AND SUNDRIES.

SUIT AGAINST DR. HOPKINS.—The following extract is taken from the *Journal*, Rawlins, Wyoming: "Veterinarian Hopkins has a suit for damages on his hands, brought by the Comanche Cattle Company, of Missouri, for detaining a lot of cattle in quarantine at the border of the territory in 1885. The cattle were *en route* to Montana. The damage is placed at \$2,500, which, it is alleged, was expended for food during the time the cattle were detained. Acting Governor Morgan referred the matter to Attorney-General Donzelman, who decided that, as the territory was not made a party to the suit, no action on his part was necessary, but he was ready to assist in any way in his power to uphold the law of the territory."—*Nat. Live Stock Journal*.

A MONSTROSITY.—It is stated that 'a living heifer calf, seven weeks old, is on exhibition at 72½ Montgomery Street, Jersey City, which has three eyes, three under jaws, three tongues, three sets of teeth, and a double pair of nostrils. It is in perfect health, takes its food regularly, and is apparently thriving, was born at Orange Valley, N. J., on the farm of Mr. W. H. Hall, and is the offspring of a full-blooded bull and an Alderney cow. Veterinary surgeons (?) say it has a double set of brains, and will have at least four horns. This little freak is very docile, chews its cud the same as any other calf, but does not appreciate the public gaze.'—*Ibid.*

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